Inflammatory Bowel Disease

Russell O. Davis, DO

WRAMC

Introduction - IBD

- A review and focus on management for the internist
- Views of Italy for the world traveler

Ulcerative Colitis

- A chronic inflammatory condition of the mucosa limited to the colon
- Characteristically involves the rectum and can extend, symmetrically, throughout the large bowel
- 1/5 will have extensive colitis
- Etiology - Unknown

Epidemiology - UC

- Incidence 2-6/100,000/yr in the US
- Prevalence 50-80/100,000 in the US
- Age 20-40, but can occur anytime
- Female preponderance
- Cost

Sign and Symptoms - UC

- Bloody diarrhea, tenesmus, passage of mucus
- Anorexia, nausea, abdominal pain, weight loss
- Mild to moderate disease - benign exam
- Severe disease - febrile, tender abdomen, ill-appearing

Differential Diagnosis

- IBD
- Infectious Enteritis
- “colitis” - ischemic, radiation, drug induced, microscopic, and collagenous
- Colon Ca, diverticular disease, solitary rectal ulcer, IBS

Diagnosis - UC

- History and PE
- Stool culture and analysis
- Sigmoidoscopic appearance
- Histology

- Radiology, colonoscopy

Extraintestinal Manifestations

- Skin - erythema nodosum 2-4%, pyoderma gangrenosum 1-2%
- Mouth - aphthous ulcers 10%
- Eyes - uveitis, episcleritis 5%
- Joint - acute arthropathy 15%, sacroilitis 12-15%
- Liver disease - PSC 3%

Assessment of Severity - UC

- Mild disease - less than 4 stools/day without signs of toxicity
- Moderate disease - greater than 4 stools/day with minimal signs of toxicity
- Severe disease - greater than 6 stools/day with fever, tachycardia, anemia, and increased ESR

Approach to Management - UC

- Therapeutic goals - (1) Induce remission and (2) maintain remission
- Medical management - aminosalicylates, corticosteroids, immunosuppressants
- Surgical

Aminosalicylates - UC

- Sulfasalazine (Azulfidine)
- Dose dependent ADR - nausea, anorexia, folate def, headache, alopecia
- Dose independent ADR - male infertility, rash, hemolytic anemia, hepatitis, pancreatitis and agranulocytosis

Aminosalicylates - IBD

- Mesalamine (Asacol, Pentasa, Rowasa)
- Asacol - enteric coated tablet
- Pentasa - time released caplet
- Rowasa - topical

- Olsalazine (Dipentum) - prodrug (second generation aminosalicylate)

Corticosteroids - IBD

- Prednisone
- Hydrocortisone, methylprednisolone
- Hydrocortisone enemas, cortisone foam
- Budesonide (PO/PR)

Immunosuppressants - IBD

- Azathioprine or 6-mercaptopurine
- ADR - nausea, fever, arthralgias, pancreatitis, transaminitis, myelosuppression
- Cyclosporine
- ADR - nausea, anorexia, seizures, renal failure, opportunistic infections


M·AGRIPPA·L·F·COS·TERTIVM·FECIT

Mild-moderate distal colitis - Active Disease (UC)

- 1st line therapy - salicylates - PO
- Sulfasalazine 4-6g/day divided qid
- Mesalamine 2-4g/day divided bid-qid
- Olsalazine 1.5-3g/day divided bid-qid
- *Effective in achieving a remission in 80% within first 2-4 weeks

Mild-moderate distal colitis - Active Disease (UC)

- Alternate 1st line therapy - topical (PR)
  - Mesalamine supp 500mg bid
  - Mesalamine enema 2-4g bid
  - Hydrocortisone enema 100mg bid
  - !0% cortisone foam bid
  - 2nd line - corticosteroids
  - 3rd line - immunosuppressants (rare)

Maintenance distal Disease - UC

- Mesalamine supp 500mg bid
- Mesalamine enema 2-4g bid
- Oral sulfasalazine 2-4g/day or mesalamine 1-2g/day is also effective

- Corticosteroids are not effective in maintenance of remission

Mild-moderate extensive colitis - Active Disease (UC)

- 1st line - PO sulfasalazine or mesalamine
- 2nd line - prednisone 40-60g/day
- 3rd line - azathioprine 1.5-2.5mg/kg/day or an equivalent dose of 6-MP
- Maintenance - PO aminosalicylates or immunosuppressants

Severe colitis - UC

- Admission to hospital - IVF and lytes
- Indications for IV steroids - signs of toxicity or failure of max outpatient TX
- Hydrocortisone 300mg/day divided qid
- Methylprednisolone 48mg/day
- Failure of IV steroids after 7-10 days; colectomy or IV cyclosporine

Indications for colectomy-UC

- Severe exacerbation failing to respond to medical therapy
- Complication of severe attack
- Chronic disease with decreased quality of life
- Dysplasia on surveillance endoscopy

Recommendations for Cancer Surveillance -UC

- Annual colonoscopy 8-10 years after the first exacerbation
- Risk for colon CA increases by 1%/yr after 10 years with extensive UC
- Distal UC increase risk by 1% after 30 years

Course and prognosis - UC

- 80%-intermittent exacerbations followed by variable periods of remission
- 15%-chronic colitis requiring colectomy
- 5%-severe first attack requiring colectomy
- Long term life expectancy - no different than the general population

Introduction - Crohn's Disease

- Chronic transmural inflammation that may involve any part of the GI tract
- Complicated by fistulization and/or obstruction
- Distribution is asymmetric and segmental; "skip lesions"
- Etiology - Unknown

Anatomy and Pathology - CD

- Small bowel involvement - 80%
- Colitis alone - 15-20%
- Perirectal and perianal involvement; rectum is spared

- Non-caseating granulomas are pathognomonic; present 1/2 of cases

Epidemiology - CD

- Incidence in the US 5/100,000/yr
- Prevalence in the US 50/100,000
- Presents in young adults 15-30, second peak in the 6th decade

Disease Patterns - CD

- Obstruction
- Fistulization - various manifestations; intra-abdominal abscess, enteroenteric fistula, enterovesical fistula, enterocutaneous fistula, and free perforation

Extraintestinal manifestations

- Colitis related - skin, oral, ocular, joint, and hepatobiliary (PSC less common)
- Malabsorption
- Miscellaneous - amyloidosis and thromboembolic disease

Signs and Symptoms - CD

- R lower quadrant pain and bloody diarrhea
- Nocturnal or chronic diarrhea, anorexia, weight loss, fever, and aphthous ulcers
- Tender RLQ, fever, pallor or cachexia

Differential Diagnosis

- IBD, infectious enteritis, “colitis”
- Appendicitis
- Appendiceal abscess
- Cecal diverticulitis
- Tubo-ovarian abscess, ovarian cyst, and ectopic pregnancy

Diagnosis - CD

- History/PE/Stool studies
- Endoscopy with biopsy
- Radiologic findings in the small bowel are often the key to diagnosis (UGI with SBFT/barium enema
- CT - eval for fistula or abscess

Assessing Disease Severity - CD

- Mild-moderate- absence of fever, abdominal pain or weight loss
- Mod-severe-(1) pt who fail medical TX for mild-mod or (2) patients with fever, abdominal pain and <10% weight loss
- Severe fulminant-(1) symptoms despite prednisone or (2) rebound, persistent vomiting, cachexia, or abscess

Mild-moderate CD - Active

- Sulfasalazine 3-6g/day or mesalamine 3.2-4.8g/day in divided doses (1/2 CR)
- Metronidazole 10-20mg/kg/day bid
- Metronidazole has been shown to be relatively equivalent to salicylates
- Metronidazole very effective for perianal disease alone

Moderate-Severe CD - Active

- Exclude abscess or infection
- Prednisone 40-60mg/day, taper 5-10mg/week until at 10mg; then taper 2.5mg week until resolution of symptoms
- Unfortunately, 1/2 will become steroid dependent or steroid resistant

Severe-Fulminant CD - Active

- Hospitalized, surgical consultation
- Exclude abscess with CT or US
- Solumedrol 40-60mg IV q6-8 hrs
- NPO, if no symptomatic improvement in 5-7 days, consider TPN

Maintenance therapy - CD

- Mesalamine
- Immunosuppressants - azathioprine and 6-MP
- Steroids are ineffective in maintaining remission in CD
- Maintenance therapy is required following resection

New Therapies in CD

- Methotrexate - for maintenance
- Chimeric monoclonal AB cA2 (Infliximab)
- Interleukin-10

Surgical Indication - CD

- Failure of medical therapy
- Complication of exacerbation to include bowel obstruction, perforation, massive hemorrhage, and toxic megacolon
- 70% of patients will require surgical resection
- Recurrence following resection is very likely

Prognosis and Course - CD

- 70% of patient require surgery during their lifetime; vast majority recur
- Predispose to both small intestine and colon CA
- Risk compare to UC is equal in CD involving the colon
- Annual colonoscopy in patients with CD colitis is recommended


6
32
BETO
10
R.BAGGIO
18